cases is that the attack made by the antibodies is such as to secure a focusing of the infection and establish a necrosis in that area of limitation; that where the individual is unable to resist the infection it travels with such rapidity that we do not see a marked accumulation of leucocytes. That in these cases where suppuration does not occur there is just as much disintegration and destruction of the myochrome as in cases where suppuration does occur, but there is an immeasurably less abundance of leucocytes, and a less accumulation of antibodies.

Dr. Coplin was greatly interested in the effect of the disease upon the organs of respiration. In one case which he had the opportunity to examine in very great detail, there was a clearly defined streptococcal bronchitis, while between the intralobular spaces one could see the lines of an interstitial pulmonary lymphangitis. Delicate yellowish lines traced over the incised surface of the organ and extended toward the pulmonary lymph nodes, and in this very case there was, in the peribronchial lymph nodes, no cellular infiltration.

In some of these cases there is a respiratory difficulty behind the respiratory obstruction of the larynx, just as we occasionally see in puerperal sepsis, in erysipelas, and in that peculiar disease, Brinton's disease, the absorption of toxic material and the induction of advanced suppurative interstitial pneumonia. Dr. Coplin believes this is in some cases mistaken for capillary bronchitis, which presents a very similar clinical picture.

With regard to the atrium of the infecting organism Dr. Coplin does not consider this of much importance, and believes that it has little material influence on the pathology of the lesion.

"COINCIDENT ABDOMINAL LESIONS."

Cases: (I) *Appendicitis with ruptured extra-uterine pregnancy.* (II) *Appendicitis, pregnancy and ureteral calculus.* (III) *Dermoid cyst of ovary, pregnancy and gallstones.* (IV) *Tuberculosis of ovary and appendix with floating kidney.*

Dr. Geo. Erety Shoemaker said that the subject of combined operations or of operations for different lesions present at the same time, was one of interest and importance, frequently calling for the exercise of judgment. A number of years ago he read a paper before the Academy of Surgery advocating the removal of the appendix, if not normal, in all suitable cases when

the abdomen was opened for other purposes. The proposition was received with little respect at that time, but in the evolution of surgical opinion has since become the practice of many good abdominal operators. When operating for other abdominal conditions, examination of the appendix, in all patients not in immediate danger from shock or exhaustion, and where the fear of spreading septic material from another focus does not deter, will result in demonstrating in at least 25 per cent. of cases evidences of sub-acute or chronic disorder of the appendix. In his last 400 abdominal operations not undertaken for appendicitis alone, the appendix was removed in 88, or 22 per cent. Some of these disorders involve the organ only from without and can do harm chiefly by interference with drainage, through angulation from contraction of the meso-appendix or of surrounding adhesions. Other cases show evidences of intrinsic disease of the appendix in various stages of development. This is particularly true of chronic pelvic inflammation with definite lesions of other viscera, especially tubercular.

It may be difficult before operation to separate the appendiceal from the other inflammatory conditions present. Interesting papers have been presented on the topic of referred pain leading to obscurity in diagnosis between appendicitis and kidney or gall bladder disease chiefly. His object here was to draw renewed attention to the fact that even when one definite and important lesion is demonstrated and removed at operation the surgeon should not stop, particularly in chronic cases, until he determines that other organs are not involved. Dr. Mayo has recently spoken of the systematic examination of the gall bladder from the lower incision. This of course can only be done when the incision is large enough to admit the hand and wrist, and should be omitted when dealing with pelvic infections. It does not by any means follow that the second lesion should be operated upon at the same sitting. Indeed, it might be a serious error, to attempt to deal with a badly adherent and inflamed gall bladder, the same day that an acute appendicitis required operation, or vice versa. A bad hysterectomy may tax the patient's resources, and the removal of an adherent appendix might bring the colon bacillus risk into an otherwise clean field. Quiescent inflammatory conditions of moderate severity in strong patients may, however, be attacked at the same sitting, especially if in the

same general locality. A movable kidney which is bad enough to cause trouble may be anchored at the same time that a chronic appendicitis is cured by appendectomy.

In gynecological work it is constantly found that the same patient presents several conditions each of which causes trouble. Hemorrhage requiring the curette; laceration of cervix and perineum requiring repair; bleeding and prolapsed hemorrhoids requiring operation; chronic salpingitis and appendicitis requiring conservative operation. These may all be dealt with at the same sitting only if the inflammatory processes are quiescent. If they are active the operations must be done in two groups, and the more serious should be done first. He had a patient now convalescing in whom all of these conditions were operated upon at the same time.

The patient must not be kept too long under ether and after the abdomen is opened, no work on another part should be done. Minor procedures, such as repair of lacerations, should be carried out first, as these cause no definite strain, and the patient's danger begins only when the abdomen is opened. Of course gloves and instruments are changed when the field is changed to the abdomen. He reported the following instances of combined lesions of important type:

I. *Extra-uterine pregnancy associated with appendicitis.* C., 41 years. Not previously pregnant for 14 years. Menses irregular and apt to be profuse for nine months. No periods missed, but the last one, which began six weeks before examination, had been a week late, and bleeding had continued ever since. The rupture of the left pregnant tube had occurred two weeks before with sharp pain followed by fainting and perspiration. The ovum was still in the tube in a tiny unruptured sac of fluid. Pregnancy was probably not over six weeks old. There had been much rectal bleeding for several months, temperature had never been found by her physician to be over 100 when taken. Symptoms had been so mixed including bleeding from bowel and vagina, severe pain in left abdomen chiefly and abdominal soreness and chronic indigestion, that attention had never been definitely fixed by her physician upon the appendix region and an attack of moderate severity had doubtless passed over before the ruptured extra-uterine pregnancy occurred.

When referred to him in his office, the diagnosis of ruptured

extra-uterine pregnancy was made and operation advised and performed the same day. The left tube was ruptured near the attachment of the broad ligament, many ounces of free blood and clot found in the peritoneal cavity. Tube removed leaving corresponding ovary. Examination of the appendix showed a hard meso half an inch thick, the appendix walls dusky red, hard, thick and rigid, the mucous coat purple, no pus; removal. Diagnosis: Decided sub-acute appendicitis without perforation. Ruptured left pregnant fallopian tube and intra-abdominal hemorrhage. It is interesting to note that in the four months which have elapsed since the operation the troublesome chronic indigestion present for years has disappeared.

II. *Coincident acute appendicitis: pregnancy and ureteral calculus with nephritis.* E. G. A patient is now in the Presbyterian Hospital where three prominent conditions had to be considered. *First,* pregnancy at four and a half months, with a very high right uterine cornu. *Second,* severe pain with tenderness behind and about right kidney, much blood in the urine, abundant dark granular and other casts, the pain passing down the course of the right ureter to right vulva. *Third,* an acute right sided abdominal inflammation with temperature to 103°, chills and a septic look. Leucocytosis 25,000.

This case was cleared up: first by the passing on the day of admission of a sharp pointed crystal with the urine with relief of kidney pain; second, by laparotomy and removal of appendix, the abdomen containing about two ounces of free turbid fluid, no adhesions, peritoneum deeply congested in right abdomen; third, by the use of large quantities of water by mouth and salt solution by rectum to overcome the nephritis. The pregnancy was undisturbed, the child lives. The gauze drainage has now been removed and the wound is healed. The general condition good except for nephritis.

III. *Coincident dermoid cyst of ovary, pregnancy and gallstones.* J. C., 35 years old, 6 children. Applies (*a*) because of severe pain in gall bladder region for one month, through to shoulder. Constant distress also in epigastrium. No vomiting, no jaundice, no putty colored stools. Only similar attack followed a confinement two years before. Examination shows (*a*) a tender, small gall bladder. (*b*) A rounded tumor four inches long, adherent in pelvis with much soreness and pain about it.

(*c*) Pregnant two months. Perineum and cervix much lacerated.

As an adherent tumor overlying a pregnant uterus was a greater present menace than the sub-acutely inflamed gall bladder, the abdominal incision was made low down and a dermoid cyst of the left ovary four inches by three by two and a half firmly adherent was removed without rupture. It contained bone an inch long and cholesterin. The appendix was quiescent but showed old inflammatory changes. It was removed through the same incision. The gall bladder was examined through the lower incision and found to be tightly contracted around two large gall stones into an hour glass shape. There was no fluid. Operation on the gall bladder was postponed until after delivery, in the absence of dangerous symptoms. Recovery followed from the dermoid operation and appendectomy, the woman was delivered at term seven months later. She was seen a few days ago, and as she still complains of the gall bladder soreness she is to have an operation as soon as her child is old enough to wean.

IV. *Tuberculosis of ovary and appendix. Movable kidney.* M. E. Single, 27 years. Attack called appendicitis four years before and a second two months before; ever since which walking and jarring hurt the right lower quadrant and up behind the kidney. Loss of weight 13 pounds, now 105. For two months an inflammatory swelling on 7th rib in front. Pain in right upper abdomen at times severe and apparently due to a very movable kidney which varies in size, now presenting a fusiform swelling which is movable and can be displaced upward as far as the umbilicus. The appendix is tender, the tubes and ovaries are fixed. The patient was bright, cheerful and intelligent; keenly desired relief. Urine normal.

To overcome the pain arises in the right kidney region, as the fusiform swelling was probably an early hydronephrosis, the kidney was anchored. The appendix was exposed through a gridiron incision. The peritoneum nearby was sparsely studded with small tubercles; no fluid, no adhesions. In the meso appendix a cheesy nodule size of grain of corn. Appendix sub-acute catarrhal inflammation, removed with cheesy meso: stump buried. Through the gridiron incision the tubes were felt to be diseased. It was therefore closed and a small median incision made, through which by catgut ligation, the right tube was

resected and the left removed at the cornu. One-third of the left ovary was removed. The tubes formed closed sacs imbedded in adhesions. No drainage.

Convalescence extremely smooth. Wounds healed primarily. Several days later under local anesthesia a fusiform yellowish flocculent mass of material looking like coagulated lymph was removed from the periosteum of the 7th rib, leaving a smooth glistening cavity which promptly healed with packing. Pathological report of Dr. Steele: Tuberculosis of ovary, giant cells and typical areas of infiltration. Cells of larger type found in tubercles. No giant cells or caseation found in tubes.

These operations were done two years ago. Patient seen recently. Scars sound. No abdominal symptoms. Menstruation regular and painless. Walks well and works without distress. Kidney in place, no trouble since. No disease or tenderness in tubal or ovarian regions discoverable on examination of pelvis. Lungs negative. Weight same as before operation, 105. Considers that operations were of enormous benefit to her and claims to be gaining in general health, though still slender and rather pale.